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APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 09/747,439 12/21/2000 James A. Riosa END920000047US 8420 EXAMINER 7590 07/06/2004 BULLOCK JR, LEWIS ALEXANDER John R. Pivnichny IBM Corporation - N50/040-4 PAPER NUMBER ART UNIT 1701 North Street Endicott, NY 13760 2126

Please find below and/or attached an Office communication concerning this application or proceeding.

•	Application No.	Applicant(s)
Office Action Summary	09/747,439	RIOSA ET AL.
	Examiner	Art Unit
	Lewis A. Bullock, Jr.	2126
The MAILING DATE of this communicated for Reply	ation appears on the cover sheet with	h the correspondence address
A SHORTENED STATUTORY PERIOD FOR THE MAILING DATE OF THIS COMMUNIC.  - Extensions of time may be available under the provisions of after SIX (6) MONTHS from the mailing date of this commun.  - If the period for reply specified above is less than thirty (30) of the period for reply is specified above, the maximum statul.  - Failure to reply within the set or extended period for reply will Any reply received by the Office later than three months afte earned patent term adjustment. See 37 CFR 1.704(b).	ATION. 37 CFR 1.136(a). In no event, however, may a rejication. days, a reply within the statutory minimum of thirty ory period will apply and will expire SIX (6) MONT I, by statute, cause the application to become ABA	ply be timely filed  (30) days will be considered timely.  HS from the mailing date of this communication.  NDONED (35 U.S.C. § 133).
Status		
1) Responsive to communication(s) filed	on	
•	)⊠ This action is non-final.	
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.		
Disposition of Claims		•
4) ☐ Claim(s) 1-100 is/are pending in the ap 4a) Of the above claim(s) 26-46,59-73  5) ☐ Claim(s) is/are allowed.  6) ☐ Claim(s) 1-25,47-58 and 74-85 is/are r  7) ☐ Claim(s) is/are objected to.  8) ☐ Claim(s) are subject to restriction	and 86-100 is/are withdrawn from o	consideration.
Application Papers		
9)☐ The specification is objected to by the E 10)☑ The drawing(s) filed on 21 December 2 Applicant may not request that any objected Replacement drawing sheet(s) including th 11)☐ The oath or declaration is objected to b	$000$ is/are: a) $\square$ accepted or b) $\square$ on to the drawing(s) be held in abeyance correction is required if the drawing(s)	e. See 37 CFR 1.85(a). c) is objected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for a) All b) Some * c) None of:  1. Certified copies of the priority do 2. Certified copies of the priority do 3. Copies of the certified copies of application from the Internationa * See the attached detailed Office action for the certified copies of the certified copies of application from the Internationa * See the attached detailed Office action for the certified copies of the certified copies of application from the International * See the attached detailed Office action for the certified copies of the priority do 2.	ocuments have been received.  Incuments have been received in Ap  Ithe priority documents have been re  Ithe Bureau (PCT Rule 17.2(a)).	plication No eceived in this National Stage
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-8) Information Disclosure Statement(s) (PTO-1449 or PT Paper No(s)/Mail Date 4.		Mail Date. <u>06/18/04</u> . ormal Patent Application (PTO-152)

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## **DETAILED ACTION**

#### Election/Restrictions

- 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-25, 47-58 and 74-85 are, drawn to generating of event management rules in a distributed environment, classified in class 719, subclass 318.
  - II. Claims 26-46, 59-73, and 86-100 are, drawn to generating a class definition from an event relationship network, classified in class 717, subclass 108.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions Group I and Group II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination generates a plurality of event management rules for each event type automatically from the event relationship network rules and does not set forth that the hierarchical class definition structure is generated by determining branch points in the connected graph and processing accordingly. The subcombination has separate utility such as generating a class definition by determining whether a branch point has been reached and processing accordingly.

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- 3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, different search, and recognized divergent subject matter, restriction for examination purposes as indicated is proper.
- 4. During a telephone conversation with John Pivnichny on June 4, 2004 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-25, 47-58 and 74-85. Affirmation of this election must be made by applicant in replying to this Office action. Claims 26-46, 59-73 and 86-100 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
- 5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

## Claim Rejections - 35 USC § 103

- 6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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7. Claims 1-25, 47-58 and 74-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Event Relationship Network: A Framework for Action Oriented Analysis in Event Management" by "THOENEN et al.

As to claim 1, THOENEN teaches a method for the automated implementation of a hierarchical event relationship network (ERN) for correlation analysis in a distributed computing environment, comprising the acts of: inputting event handling information for each event (events) to be monitored (via taking inventory of events) (pg. 8, 6<sup>th</sup> - 8<sup>th</sup> paragraphs); customizing a plurality of rule templates (document event processing policies) for each event type within an event source (pg. 9, 1st paragraph – pg. 10, 2nd paragraph); generating a hierarchical class definition structure and naming structure (event class objects / directed acyclic graph) from the plurality of event relationship network rules (ERN) for each event source (via ERN analysis) (pg. 5, 3<sup>rd</sup> – pg. 6, 3<sup>rd</sup> paragraph, "Once an ERN is constructed, it is relatively simple to create the associated correlation rules...it is desirable to provide nested structures of ERNs."); and generating a plurality of event management rules (correlation rules) for each event type automatically from the event relationship network rules (ERNs) and the rule templates (pg. 13, 3<sup>rd</sup> paragraph, "Once ERNs are constructed, they must then be translated into correlation rules."). However, THOENEN does not mention the step of verifying that the rules do not violate an event protocol. It is obvious to one skilled in the art at the time of the invention that since the event management implementation of THOENEN are standardized (pg. 11, 2<sup>nd</sup> – 3<sup>rd</sup> paragraphs) that the rules are verified by the user or the during the automated generation to not violate the event protocol.

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As to claims 2 and 3, THOENEN teaches a rule-based event manager (enterprise event manager) for handling of events in the distributed computing environment (pg. 10, 3<sup>rd</sup> – 6<sup>th</sup> paragraph, "Such events are forwarded to the enterprise event manager."). It would be obvious that since the event manager sends the event to the proper event processing rule that the event rules are loaded to the event manager for analyzing them against the received event.

As to claim 4, THOENEN teaches the event sources include a hardware device (router) (pg. 3, 7<sup>th</sup> paragraph, "Consider a Cisco router."; pg. 8, 2<sup>nd</sup> paragraph, "Example of event sources include: UNIX servers, NT servers, NetWare Servers, hubs, routers, ATM switches, UPS systems, applications, web servers, and databases.").

As to claims 5-7 and 22, THOENEN teaches the event relationship network includes a series of drawing pages (workbook) that depict subsets of correlation relationships (pg. 8, "6<sup>th</sup> – 8<sup>th</sup> paragraph, "This is accomplished by having a workbook (usually based upon a spreadsheet application) for each event source wit ah description of events emitted by that source."..."Although this is contained in a spreadsheet, this is actually a highly customized application that employs extensive database capabilities to represent relationship between events.").

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As to claim 8, THOENEN teaches the events are defined based on a connected graph model (pg. 4, 7<sup>th</sup> paragraph, "An ERN is a directed acyclic graph. Nodes are events and are labeled with one of the roles just described.").

As to claims 9-13, 23 and 24, "Official Notice" is taken in that the Basic Recording of Objects in C (BAROC) files are well known in the art and therefore would be obvious in view of THOENEN.

As to claims 14-21, THOENEN teaches a plurality of rule sets (rules) to handle each event, the rule sets (rules) including duplicate detection and trouble ticketing, autonomous events, primary events (primary events), primary/secondary events (primary/secondary events) and clearing events (primary/secondary events) and clearing events (clearing events) (pg. 4, 3<sup>rd</sup> paragraph – pg. 5, 1<sup>st</sup> paragraph; pg. 5, 3<sup>rd</sup> paragraph – pg. 6, 2<sup>nd</sup> paragraph) (pg. 4, 8<sup>th</sup> paragraph – pg. 5, 1<sup>st</sup> paragraph), "To this end, actions are associated with events based on their role in an incident. Typically primary events initiate a response (e.g. opening a trouble ticket), and clearing events terminate the response (e.g. closing a trouble ticket). Secondary events, if they have associated actions, complement what the primary event has done (e.g. append to the trouble ticket).").

As to claim 25, THEONEN teaches adding, modifying, and deleting rule actions and commands to perform the event management behavior specified by an end user

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(subject matter experts) (pg. 10, 2<sup>nd</sup> paragraph, "With the policy framework in hand, the next step is to make decisions about individual events...This activity requires the involvement of subject matter experts who understand the event sources and their semantics."; pg. 14, "4<sup>th</sup> – 6<sup>th</sup> paragraph, "Last, note that the above scheme allows us to think in terms of ERNs, both for initial ERN construction and when modifications and extensions are done."... "Althrough these modifications were extensive, they ewere easily incorporated into the ERNs and translated into Prolog rules.").

As to claims 47-58, reference is made to a computer readable medium that corresponds to the method of claims 1-25 and is therefore met by the rejection of claims 1-25 above.

As to claims 74-85, reference is made to a system that corresponds to the method of claims 1-26 and is therefore met by the rejection of claims 1-26 above.

## Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis A. Bullock, Jr. whose telephone number is (703) 305-0439. The examiner can normally be reached on Monday-Friday, 8:30 am - 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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